



Mawlana Bhashani Science And Technology University

## Lab-Report

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## FCFS scheduling algorithm

**First come first serve** (FCFS) scheduling algorithm simply schedules the jobs according to their arrival time. The job which comes first in the ready queue will get the CPU first. The lesser the arrival time of the job, the sooner will the job get the CPU. FCFS scheduling may cause the problem of starvation if the burst time of the first process is the longest among all the jobs.

### **Implementation:**

Implementation of **FCFS** is given below. Note that distance is used to store absolute distance between head and current track position.

```
#include<stdio.h>
int main()
{
    int n,bt[20],wt[20],tat[20],avwt=0,avtat=0,i,j;
    printf("Enter total number of processes: ");
    scanf("%d",&n);
    printf("\nEnter Process Burst Time\n");
    for(i=0; i<n; i++)
    {
        printf("P[%d]: ",i+1);
        scanf("%d",&bt[i]);
    }
    wt[0]=0; //waiting time for first process is 0
    //calculating waiting time
    for(i=1; i<n; i++)
    {
        wt[i]=0;
        for(j=0; j<i; j++)
            wt[i]+=bt[j];
    }
    printf("\nProcess\t\tBurst Time\tWaiting Time\tTurnaround Time");
    //calculating turnaround time
    for(i=0; i<n; i++)
    {
        tat[i]=bt[i]+wt[i];
        avwt+=wt[i];
        avtat+=tat[i];
        printf("\nP[%d]\t\t%d\t\t%d\t\t%d",i+1,bt[i],wt[i],tat[i]);
    }
    avwt/=i;
    avtat/=i;
    printf("\n\nAverage Waiting Time:%d",avwt);
```

```

printf("\nAverage Turnaround Time:%d",avtat);
printf("\n\n");
return 0;
}

```

Output:

```

Enter total number of processes: 3

Enter Process Burst Time
P[1]: 5
P[2]: 8
P[3]: 4

Process          Burst Time    Waiting Time    Turnaround T
ime
P[1]             5            0              5
P[2]             8            5              13
P[3]             4            13             17

Average Waiting Time:6
Average Turnaround Time:11

```

## Discussion:

First Come First Serve (FCFS) is an operating system scheduling algorithm that automatically executes queued requests and processes in order of their arrival. ... In this type of algorithm, processes which requests the CPU first get the CPU allocation first. This is managed with a FIFO queue.